



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

of marine animals, but any one who has lived at the sea-shore and endeavored to keep alive these tiny creatures, will soon find in this method insurmountable obstacles to pursuing his investigations beyond very narrow limits. The only way is to go to the fountain head at once, to make oneself familiar with the currents at all hours of the tide and under all possible influences of wind; to notice the place where opposite currents meet, and throw into long bands the wealth of animal life they have swept along; to become so perfectly familiar with what you may expect to find under certain conditions, that no time shall be lost in looking for the most favorable spot which otherwise you would only stumble upon accidentally. The habitat of the adult animals should be carefully observed, so that by surface dredging with the fine gauze hand-net in the vicinity of their abodes, and by a close attention to the direction which the currents take from these places, at the time of breeding, we can often obtain specimens at all ages and of all sizes, till they have ceased to be nomadic or have assumed the habits they retain in their adult condition.

## NATURAL HISTORY MISCELLANY.

### BOTANY.

THEORY OF THE ORIGIN OF THE ANTHER OF FLOWERS.—Dr. Müller read a memorandum of the monstrosities which he had met with in the flower and fruit of the *Jatropha pohliana*, and deduced therefrom some conclusions on the theory of the anther. He thinks that this is formed neither by the combination of two ordinary leaves, nor by a leaf whose edges are incurvated towards the median rib, so as to form the two chambers of the pollen. He believes that the anther represents only a single leaf, and that the pollen is developed in the incrassated tissue of the parenchyma of this leaf.—*Report of the Transactions of the Society of Physics and Natural History of Geneva*, 1863-5. *Smithsonian Report*, 1865.

PHYSIOLOGICAL EFFECTS OF THE CALABAR BEAN.—Dr. Dor read a memoir on the physiological effects of the bean of Calabar, *Physostigma venenosa*. Studied specially in its effects on the eye, this substance produces contraction of the pupil, and occasions a sort of cramp of the accomodator muscle. In this double relation it acts as an antagonist of the atropina.—*Ibid.*

SKELETON LEAVES.—The following method has been communicated to the Botanical Society of Edinburgh:—"A solution of caustic soda is made by dissolving 3 oz. of washing soda in 2 pints of boiling water, and adding 1½ oz. of quick lime, previously slacked; boil for ten minutes, decant the clear solution and bring it to the boil. During ebullition add the leaves; boil briskly for some time—say an hour, occasionally adding hot water to supply the place of that lost by evaporation. Take out a leaf and put into a vessel of water, rub it between the fingers under the water. If the epidermis and parenchyma sepa-

rate easily, the rest of the leaves may be removed from the solution, and treated in the same way; but if not, then the boiling must be continued for some time longer. To bleach the skeletons, mix about a drachm of chloride of lime with a pint of water, adding sufficient acetic acid to liberate the chlorine. Steep the leaves in this till they are whitened (about ten minutes), taking care not to let them stay in too long, otherwise they are apt to become brittle. Put them into clean water, and float them out on pieces of paper. Lastly, remove them from the paper before they are quite dry, and place them in a book or botanical press."—*Dr. G. Dickson, Hardwicke's Science Gossip, Jan. 1. 1867.*



### ZOOLOGY.

THE EDIBLE CRAB IN SALEM.—A large specimen of the common Edible Crab of the Southern markets, *Lupa dicantha*, was caught in the Millpond during the past winter. With the exception of a young specimen found on Phillips' Beach, it has not before been known to occur so far north as Massachusetts Bay. The Millpond is an inlet of Salem harbor, and the water is quite salt.—C. COOKE.

MIMETIC FORMS AMONG THE BUTTERFLIES.—Mr. A. R. Wallace states before the British Association, that "the *Heliconidæ*, a group of butterflies with a powerful odour, such as to cause birds to avoid eating them, were simulated by the females of another group, which had no smell, and might otherwise fall ready victims to birds. By their great resemblance to the obnoxious butterflies, the scentless females were enabled to escape pursuit, and deposit their eggs."—*The Reader, London, Oct. 6, 1866.*

FERTILE WORKERS AMONG THE HONEY BEES.—Mr. Tegetmeier, at the meeting of the Entomological Society of London, June 4, 1864, exhibited some drones hatched from eggs laid by fertile workers:

They were produced by placing in March, a comb containing eggs and larvæ in *workers' cells only*, in a hive which had been sometime without a queen, and which consequently contained no brood whatever. There was no apparent attempt made by the bees to form a royal cell and to rear a new queen from the workers' eggs, but after the latter were hatched the bees produced from them laid eggs. These were deposited in the drone cells only, sometimes as many as six being placed in one cell, of which only one was hatched, a drone in all cases being produced. It was noticed that these fertile workers were hatched and laid eggs before any drones had been observed in the adjacent hives. Huber supposed that such workers were produced by partaking of some of the food designed for the production of a queen, which had been deposited in the cells adjacent to the royal one. This supposition was disproved, as there was no royal cell in the single brood comb which the hive contained.

He shows that a too close interbreeding in bees is prevented by drones from other hives entering into the hive—while stranger work-